APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,359	09/24/2003	Hiroshi Miura	103213-00057	4693

7590 05/31/2006		EXAMINER

ARENT FOX KINTNER PLOTKIN & KAHN, PLLC
Suite 600
1050 Connecticut Avenue, N.W.
Washington, DC 20036-5339

EXAMINER
SORRELL, ERON J

ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/668,359	MIURA ET AL.
	Examiner	Art Unit	
	Eron J. Sorrell	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 February 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>2,3,5 and 6</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>2,3,5 and 6</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>24 September 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>4/10/06</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs

of 35 U.S.C. 102 that form the basis for the rejections under

this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or
> a foreign country or in public use or on sale in this country, more than one
> year prior to the date of application for patent in the United States.

2.   Claims 2 and 5 are rejected under 35 U.S.C. 102(b) as being

anticipated by Taniai et al. (U.S. Patent No. 5,438,665

hereinafter "Taniai").

3.   Referring to claims 2 and 5, Taniai teaches a data

processing apparatus (figure 1) comprising a CPU (see item 10,

figure 1) for executing a program and a memory (item 14, figure

1) for storing data or for storing data and the program wherein

the data can be read out from the memory through a DMA

controller (item 11, figure 1), the DMA controller (see figure 2

for block diagram of DMA controller) comprising:

a setting register (see item 25 in figure 2) for permitting

a CPU to make settings for DMA transfer therein (see lines 6-33

of column 4);

an operation register (see item 24 in figure 2) for

permitting data stored in the setting register to be written

thereto, or an operation counter for performing counting

operation by use of the data (see lines 6-33 of column 4);

an operation controller (see item 22 in figure 2) for

performing control so that, when DMA transfer is started, the

data stored in the setting register is written to the operation

register or the operation counter (see lines 33-60 of column 4);

and

a transfer executer (see item 23 in figure 2) for executing

DMA transfer based on the data stored in the operation register

or the operation counter (see lines 33-60 of column 4).

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the
> art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

2.   Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Taniai in view of Sato et al. (U.S. Patent No.

5,640,598 hereinafter "Sato") and further in view of Hoshino (JP

02195464 A).

4.   Referring to claims 3 and 6, Taniai teaches a data

processing apparatus (figure 1) comprising a CPU (see item 10,

figure 1) for executing a program and a memory (item 14, figure

1) for storing data or for storing data and the program wherein

the data can be read out from the memory through a DMA

controller (item 11, figure 1), the DMA controller (see figure 2

for block diagram of DMA controller) comprising:

        a setting register (see item 25 in figure 2) for permitting

a CPU to make settings for DMA transfer therein (see lines 6-33

of column 4);

        an operation register (see item 24 in figure 2) for

permitting data stored in the setting register to be written

thereto, or an operation counter for performing counting

operation by use of the data (see lines 6-33 of column 4);

        an operation controller (see item 22 in figure 2) for

performing control so that, when DMA transfer is started, the

data stored in the setting register is written to the operation

register or the operation counter (see lines 33-60 of column 4);

and

a transfer executer (see item 23 in figure 2) for executing
DMA transfer based on the data stored in the operation register
or the operation counter (see lines 33-60 of column 4).

Taniai fails to teach the limitation of a setting execution
register for storing transfer conditions under which to
transfer, by DMA transfer, transfer conditions for DMA transfer
from an external memory to the setting register.

Sato teaches, in an analogous system, the above limitation
(see lines 9-27 of column 6).

It would have been obvious to one of ordinary skill in the
art at the time of the applicant's invention to modify the
system of Taniai with the above teachings of Sato. One of
ordinary skill in the art would have been motivated to make such
modification in order to reduce command processing time by
storing the transfer instructions in advance as suggested by
Sato (see lines 9-27 of column 6).

The combination of Taniai and Sato fails to teach the
limitations of a selector for alternatively selecting one of the
setting register and the setting execution register; a selection
controller for performing control so that the register selected
by the selector is switched alternately between the setting
register and the setting execution register every time DMA
transfer ends.

Hoshino teaches, in an analogous system, the above
limitation (see abstract).

It would have been obvious to one of ordinary skill in the
art at the time of the applicant's invention to modify the
combination of Taniai and Sato with the above teachings of
Hoshino. One of ordinary skill in the art would have been
motivated to make such modification in order to omit
initialization in each transfer and increase transfer speed by
providing the equipment with files for storing various kinds of
transfer conditions as suggested by Hoshino (see abstract).

Response to Arguments

5.   Applicant's arguments with respect to claims 2 and 5 have
been considered but are moot in view of the new ground(s) of
rejection.

6.   The applicant's remarks with respect to the Sato reference
and the Hoshino reference, respectively, are not persuasive (see
pages 4 and 5 of applicant's remarks). In response to
applicant's argument that while Sato teaches a setting register,
the setting register is not *for storing transfer conditions
under which DMA transfer is to be executed next time* (emphasis
added); and that while Hoshino teaches a selector and selector

controller and setting execution register, the selector is not

for alternatively selecting one of a setting register or a

setting execution register. A recitation of the intended use of

the claimed invention must result in a structural difference

between the claimed invention and the prior art in order to

patentably distinguish the claimed invention from the prior art.

If the prior art structure is capable of performing the intended

use, then it meets the claim.   Per MPEP 2114, "While features of

an apparatus may be recited either structurally or functionally,

claims directed to an apparatus must be distinguished from the

prior art in terms of structure rather than function. In re

Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed.

Cir. 1997); see also In re Swinehart, 439 F.2d 210, 212-13, 169

USPQ 226, 228-29 (CCPA 1971); In re Danly, 263 F.2d 844, 847,

120 USPQ 528, 531 (CCPA 1959)."

Conclusion

Any inquiry concerning this communication or earlier

communications from the examiner should be directed to Eron J.

Sorrell whose telephone number is 571 272-4160.   The examiner
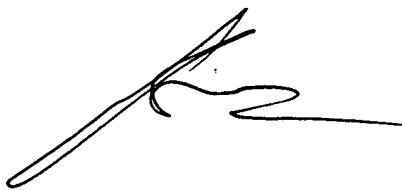
can normally be reached on Monday-Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are

unsuccessful, the examiner's supervisor, Kim Huynh can be

reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EJS
May 13, 2006

KIM HUYNH
SUPERVISORY PATENT EXAMINER
5/14/06